

Claim 1 (original) Door handle with built-in spring latch actuation mechanism for door opening, of the type comprising a body-handle (1) with L-shaped profile, with a first rectilinear section (TR) parallel the door that basically acts as handle, joined to a second inclined section (TI) that is inserted into the door; said body-handle (1) housing an opening lever (3, 30) pivoted on a pin with vertical axis (6), which supports an opening button (3a) with ejection spring (7), and ends with a hook (3c, 30c) that projects from the front end of the inclined section (TI) of the body-handle and can be inserted through a suitable slot (A) located on the leaf (B) of the door, reaching the housing and guiding box (4, 40) of the spring latch (5, 50) actuated by the hook (3c, 30c); handle characterised in that the body-handle (1) is composed of a lower part (1a) and an upper part (1b) that are matched together and are provided at the end of the inclined section (TI) with corresponding pins (1c) that engage into holes (P) of the door leaf, into which the screws (V) that fix the external handle (ME) to the internal handle (MI) are inserted and tightened.

Claim 2 (currently amended) Door handle as defined in ~~the previous claim~~ claim 1, characterised in that it comprises a finishing molding (2) used to cover the central junction line between the parts (1a, 1b), which is interrupted in the internal section of the handle provided with a thin slot (F) from which the opening button (3a) of the opening lever (3, 30) projects.

Claim 3 (currently amended) Door handle as defined in ~~one of the above claims~~ claim 1, characterised in that the lower part (1a) houses a rectilinear track (8) in the inclined section (TI), which exactly houses a sliding blocking rod (9, 90), with one end (9a, 90a) that projects on the body-handle (1), and one end that terminates with a point (9b) or catch (90b) capable of passing through

the slot (A) and being positioned, in case of actuation of the blocking rod (9, 90) in such a way to prevent the actuation of the catch (5) by acting on the opening lever (3).

Claim 4 (currently amended) Door handle as defined in ~~the above claim~~ claim 3, characterised in that the blocking rod (9, 90) has an upper hooking pin (9c, 90c) with vertical axis that, at the end of the actuation travel of the rod (9, 90), engages into a notch (3d, 30d) suitably provided along the external profile of the opening lever (3, 30) that is positioned partially above the blocking lever (9, 90) subject to the ejection thrust of a spring (10) housed inside a cavity (8a) on the track (8).

Claim 5 (currently amended) Door handle as defined in ~~one or more of the above claims~~ claim 1, characterised in that the hook (3c) of the opening lever (3) is designed to penetrate the through hole (5a) provided on the body of the said spring latch (5).

Claim 6 (currently amended) Door handle as defined in ~~one or more of claim 1 to 4~~ claim 1, characterised in that the ending hook (3c, 30c) of the opening lever (3, 30) engages with a vertical lever (51) in its central section, the head (51a) of said vertical lever (51) being engaged with a hooked appendix (50a) provided on the rear side of the spring latch (50) which is housed in a housing (40a) of said housing and guiding box (40); wherein a base of said vertical lever (51) is pivoted by means of a horizontal pin (51b) inside a fork (40) on the rear side of the plate (52) that supports the box (40) and is tightened onto the leaf (B) of the door.

Claim 7 (original) Door handle as defined in claim 6, characterised in that the opening lever (30) mounted on the internal handle (MI) ends with a forked appendix (30b) with a first hook

(30c) and a second hook (30e); the first hook (30c) in idle state being adjacent and overlapped with respect the hook (3c) of the opening lever (3) mounted on the external handle (ME).

Claim 8 (original) Door handle as defined in claim 7, characterised in that the opening lever (90) mounted on the internal handle (MI) ends with a catch (90b) capable of interfering, when the rod (90) is actuated, with the internal profile of the hook (3c) of the opening lever (3) mounted on the external handle (ME), thus preventing the door from being opened from outside.

Claim 9 (original) Door handle as defined in claim 7, characterised in that, when the rod (90) is inserted, the second hook (30d) is engaged on the back of the lever (51), thus being interfered when the lever (51) oscillates backwards due to a backward travel of the latch (50) not caused by the actuation of the opening lever (30).

Claim 10 (currently amended) Door handle as defined in ~~one or more of the above claims~~ claim 1, characterised in that it comprises a lock with cylindrical block (12) with key (11), housed at the end of the rectilinear section (TI) of the external handle (ME); it being provided that the shaft (12a) of the cylinder (12) is fixed to an L-shaped bracket (13), whose horizontal wing (13a) is dimensioned in such a way that when it is positioned on a vertical plane, the opening lever (3, 30) cannot be actuated since the insertion of the button (3a) inside the handle-body (1) is opposed by the wing (13a) that, conversely, cannot obstruct the travel of the opening button (3a) when the wing (13a) is in horizontal parallel position with respect the button (3a).

Claim 11 (currently amended) Door handle as defined in ~~one of the above claims 1 to 9~~ claim 10, characterised in that it comprises a lock with bolt (121) with key (110) housed at the end of the rectilinear section (TI) of the external handle (ME); it being provided that, once it has reached the

maximum forward position, the bolt (121) can be positioned immediately behind the opening button (3a), thus opposing the actuation of the opening lever (3, 30).

Claim 12 (original) Door handle as defined in claim 11, characterised in that the bolt (121) is housed in a cylindrical chamber (120), in which the key (110) is inserted from the back opening, while the bolt (121) projects from the front opening, which is actuated by the key (110) by means of a rotary intermediate drum (122) housed inside the chamber (120), since the key (110) is provided with a front pair of pins (110a) suitable to be inserted into a corresponding pair of holes (122a) on the rear ending section (122b) of the drum (122), which is frontally provided with a central pin (122) inserted into a suitable housing (121a) on the rear ending section (121b) of the bolt (121); it being provided that the pin (122c) and the housing (121a) are coupled in such a way that the pin (122c) can slide in axial direction inside the housing (121a), but cannot turn, so that each rotary movement of the drum (122) is transmitted to the bolt (121), which can move forward or backward in axial direction with respect the drum, without losing prismatic coupling thanks to the pin (122c).

Claim 13 (original) Door handle as defined in claim 12, characterised in that the key (110) is provided with a reference radial dowel (110c) that projects from the lateral surface and is inserted and slides inside a suitable groove (120c) on the internal surface of the rear opening (120a) of the chamber (120); it being provided that the groove (120c) has an L-shaped profile formed of a first longitudinal section and a second transversal section that extends for a semicircle.

Claim 14 (original) Door handle as defined in claim 12, characterised in that both the rotary drum (122) and the bolt (121) have guiding grooves (122d) and (121d) on the lateral surface, where radial pins (122e and 121e) applied on the chamber (120) engage; where the guiding groove

(122d) of the rotary drum (122) has a circular development on an orthogonal plane to the rotation axis of the drum, and the guiding groove (121d) of the bolt (121) has a circular development formed of a first section (121d') identical and parallel to the groove (122d) and a second section (122d'') with helical development.

Claim 15 (currently amended) Door handle as defined in ~~claims 10 and 11~~ claim 11, characterised in that the key (11) and the key (110) are housed inside a shaped piece (111) that protects and hides the real key, with the piece being shaped in such a way that it matches the aesthetics of the body-handle (1).